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Recognizing and Treating Head Lice: A Guide for Families

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Recognizing and Treating Head Lice

A Guide for Families

TABITHA FORD

MORRISVILLE FAMILY HEALTH CARE

FEBRUARY 2016 – MARCH 2016

MENTOR: KIMBERLY BRUNO, MD

Facts about head lice

- ▶ Head lice (*Pediculosis capitis*) are small insects that live on the heads of humans, laying their eggs on the scalp, and feeding on the blood of their hosts.
- ▶ Lice are not dangerous, but they are a nuisance, with their saliva often causing localized pruritus. Scratching can lead to secondary bacterial infections.¹
- ▶ Infestation is most common in children of preschool and elementary school-age, and their household contacts.¹
- ▶ Recently, there has been a surge in cases, partially due to increasing resistance to over-the-counter pediculicides.²
- ▶ Proper diagnosis and treatment of head lice is important in decreasing costs and the spread of resistance, but many local families do not know when or how to treat.

Cost of head lice

- ▶ Head lice is not a reportable condition and there are many over-the-counter remedies available, making accurate estimates of prevalence difficult to obtain.
- ▶ A review from the 1990s demonstrated 6-12 million cases annually in the U.S., involving 2.6 million households with 8% of all schoolchildren infested. This report estimated annual costs in the U. S. at \$367 million.³
- ▶ Estimates of the annual cost of permethrin treatments alone in the U.S. are between \$120-240 million.⁴
- ▶ Widely published figures suggest an overall cost in the U. S. over \$1 billion annually.^{4,5}

Community Perspective

- ▶ Makayla Carpenter, an LNA and the Assistant School Nurse at Morristown Elementary School, states that there is a surge in cases of head lice in the fall, when children are beginning to wear hats and jackets.
- ▶ Jordan Myerson, an RN and the Director of Nursing for the Lamoille South Supervisory Union (LSSU), feels that the schools have a decent handle on head lice with the procedures they have implemented, including a financial assistance program to aid families in obtaining lice treatments. However, he states that, “If we had a no-nit policy, we would have children who would never be in school.”
- ▶ Barbara Frankowski, a Professor of Pediatrics at the University of Vermont and past President of the American Academy of Pediatrics’ Council on School Health feels that steps taken to normalize head lice in the community are important. She stated that, “Head lice infestation is a common thing that can happen to any child. It means that your child is social and has friends.”

Intervention

- ▶ Physicians at the Morrisville Family Health Center identified a lack of written information available to their patients and families.
- ▶ A pamphlet, with information focused on proper identification of head lice and treatment methods, was provided for distribution.

What are head lice?

Head lice are tiny insects (about the size of a sesame seed) that can live on a person's head. They lay eggs on the scalp, and the eggs are attached to the hair. As the hair grows, the eggs move further away from the skin.

Lice commonly live in the hair of children, and can be spread in areas where children are in close contact with others. Anyone can have lice, even people who wash and brush their hair often. While lice are annoying and may be uncomfortable, they are not dangerous.

Lice are usually spread with head-to-head contact. They do not jump or fly. The bugs normally die within 48 hours if they are not on a person.

How do I know if they are gone?


Once the lice are gone, you will no longer see living lice. You will not see new eggs appearing close to the scalp. You may find eggs further down in the hair long after the lice are dead, and the person's head may itch for days after successful treatment. This does not mean you should treat again!

Please remember to follow the medication instructions and retreat as directed.


Can my child go to school?

We recommend that you call or visit the school nurse to inform them of your child's condition. They will be able to advise you on school policies.

Sources:
1. Devore, CD., Schutze, GE. Head Lice. *Pediatrics*. May 2015; 135 (5):1355-65. DOI: 10.1542/peds.2015-0746
2. Head lice. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/parasites/lice/head/> Updated Sept 2013. Accessed Feb 2016.
Image:
1. Live louse. Eran Finkle. <https://www.flickr.com/photos/finklez/1194633596/>



SCRATCHING YOUR HEAD OVER HEAD LICE?



Am I dealing with lice?

You should suspect head lice in a person who:

- Has been in close contact with someone who has lice
- Has been scratching their head frequently
- Has scratch marks behind their ears or near their hairline

Remember that many people with lice do not have itching. If you suspect lice, examine the head closely.

If you find live lice (pictured above) or find eggs (pictured right) within one finger-width of the scalp, you should treat for lice. The eggs are tiny, often match the color of the hair, and will be firmly attached to a strand of hair. Do not mistake for dandruff, which is easily removed.

If you aren't sure, call your doctor before treating.

What can I do?

Remember that, by the time you discover lice, they have probably been present for several weeks.

Do not panic.

You do not need to scrub everything in your home. Only items that have been in contact with that person's head within the past 48 hours need to be cleaned:

- Vacuum carpets, car seats, and furniture
- Soak hairbrushes in hot water
- You may use the high-heat setting on your washer or dryer to kill lice on clothing, towels, sheets, etc.

The person with lice should be treated as soon as possible, along with anyone who shares a bed with that person.

Medications:

For people over the age of 2 years, there are multiple shampoos or lotions that can be purchased over-the-counter to treat head lice.

- Permethrin (Nix) or Pyrethrin (Rid, etc.)

Use one of the medications listed above, following the package instructions carefully. Do not use conditioner in hair before treating.

If, after 8-12 hours, you see living lice that seem just as active as before treatment, call your doctor. You may need a prescription treatment.

We recommend manually removing eggs within one finger-width of the scalp.


Wet-Combing:

A good option for very young children, and helpful for getting rid of dead lice and eggs that remain in the hair.

Wet the hair with water and conditioner. Then, use a "nit comb" to carefully comb the entire head top to bottom, one small section at a time, at least twice. Comb every 3-4 days for at least 2 weeks after finding any living lice. If you find that the comb is not removing the eggs, you may need to pick them out with your fingers.

Other Options:

Some people support the use of natural products or oils to kill the lice. While some find these helpful, they have not been consistently proven to work. If you are considering an alternative treatment, contact your doctor first.



Response

- ▶ The response from both community members and physicians in Morrisville was positive. The physicians were excited to have a printout with information that could be easily distributed to parents with questions.
- ▶ One person mentioned that they appreciated that the pamphlet did not seem “clinical.”
- ▶ The LSSU Director of Nursing requested an electronic version of the pamphlet that could be shared with school administrators and nurses throughout Vermont.

Effectiveness and Limitations

- ▶ As previously mentioned, it is difficult to obtain accurate estimates of prevalence for a condition that may be treated over-the-counter. Therefore, estimates of the impact of head lice in the local community are anecdotal only.
- ▶ Due to time constraints, a method of measuring impact was not implemented. Considering that a baseline prevalence was not established, anecdotal reports of decreasing incidence in the schools would have to be considered to determine the effectiveness of this intervention.

Future Interventions

- ▶ In the future, projects can focus on establishing prevalence and education in the local elementary schools.
- ▶ Only schools in the Lamoille South region were contacted. Other schools in the county should be contacted to determine the impact of lice in those communities, and also to ensure that they allow children with remaining nits to return to school (as advised by the American Academy of Pediatrics).
- ▶ Jordan Myerson, the LSSU Director of Nursing would be an excellent contact point for determining the need for future projects benefiting the youth of Lamoille County.

Sources

1. Head lice. Centers for Disease Control and Prevention Web site. <http://www.cdc.gov/parasites/lice/head/> Updated Sept 2013. Accessed Feb 2016.
2. Durand, R., Bouvresse, S., Berdjane, Z., Izri, A., Chosidow, O., Clark, J. Insecticide resistance in head lice: clinical, parasitological and genetic aspects. *Clin Microbiology and Infection*. Apr 2012; 18(4): 338-44. DOI: 10.1111/j.1469-0691.2012.03806.x
3. Gratz, N. Human Lice: Their Prevalence, Control and Resistance to Insecticides. *WHO/CTD/WHOPES/97.8*. World Health Org. Switzerland. 1997: 1-8.
4. Hansen, R., O'Haver, J. Economic considerations associated with *Pediculus humanus capitis* infestation. *Clin Pediatrics*. 2004; 43(6): 523–27.
5. Devore, CD., Schutze, GE. Head Lice. *Pediatrics*. May 2015; 135(5): 1355-65. DOI: 10.1542/peds.2015-0746